UNIVERZITET U SARAJEVU -
ELEKTROTEHNIČKI FAKULTET
S a r a j e v o
Zmaja od Bosne bb

Na osnovu čl. 5. i 6. Odluke Vijeća Univerziteta u Sarajevu - Elektrotehničkog fakulteta o definiranju procedure realizacije naučnoistraživačkih seminara na trećem ciklusu studija – doktorskom studiju (broj: 01-503/21 od 01.02.2021. godine) i Odluke Vijeća Univerziteta u Sarajevu - Elektrotehničkog fakulteta (broj: 01-2368/25 od 07.07.2025. godine), Univerzitet u Sarajevu - Elektrotehnički fakultet, daje

O B A V I J E S T
o odbrani seminara

Studentica trećeg ciklusa studija - doktorskog studija Amina Mević, magistar fizike, branit će Naučnoistraživački seminar 1.1. pod naslovom "Towards Explainable Multi-Input Multi-Output and Multivariate Time Series Predictions".

Seminar je izrađen u saradnji sa akademskom savjetnicom, dr.sc. Senkom Krivić, docenticom Univerziteta u Sarajevu - Elektrotehničkog fakulteta.

Odbrana seminara održat će se 17. jula 2025. godine (četvrtak), s početkom u 14:00 sati, u prostorijama Univerziteta u Sarajevu - Elektrotehničkog fakulteta (sala BitLab).

Odbrana seminara je javna.

Obavijest o odbrani i sažetak seminara, oglašavaju se na oglasnim pločama i internet stranici Univerziteta u Sarajevu - Elektrotehničkog fakulteta.

Oglašeno:
Sarajevo, 08.07.2025. godine

Akademska savjetnica: Doc.dr.sc. Senka Krivić
Studentica: Amina Mević, magistar fizike

Naziv naučnoistraživačkog seminara:

Towards Explainable Multi-Input Multi-Output and Multivariate Time Series Predictions

Sažetak:
Multi-input multi-output (MIMO) learning and multivariate time series (MTS) forecasting are essential for modeling complex, interdependent systems across various domains such as manufacturing, healthcare, and environmental monitoring. Despite significant advances in predictive performance, explainability remains a key challenge, particularly in multi-output settings where most existing methods are either adapted from single-output models or lack scalability. This review provides a comprehensive overview of explainability techniques applicable to MIMO and MTS models, covering both model-agnostic and model-specific approaches. We analyze current methodologies, highlight their limitations in capturing output dependencies and temporal structures, and identify critical research gaps, including the need for unified evaluation metrics, scalable frameworks, and user-centered explanations. By addressing these challenges, future research can pave the way for transparent and trustworthy AI systems capable of supporting high-stakes decision-making in complex, multi-output applications.